THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK,

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

"The Productions of the Earth will always be in proportion to the culture bestowed upon it."

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For the Farmers' Cabinet.

The Milk Cellar.

It is a curious fact, but by no means unaccountable, that in many parts of the country the milk *cellar* is superceding the *spring house*,—an appendage that has always been considered indispensable for the production of good butter, be the other qualifications of a farm and its appurtenances what they might. While on a visit to Wilmington, Delaware, I had occasion to remark the excellence of the butter at my friend's table, when he replied, he always selected the best cellar butter at market, for the use of his family, giving it as his firm conviction, that butter made in a cellar, was far preferable to that made in a spring-house, its great recommendation being, in keeping sweet and good much longer, and retaining its fine flavour and colour to the last, which spring-house butter would not do. And he observed, it is customary to account for the greater price which some dairymen obtain for their butter in the market, by saying it is *cellar butter;* instancing the fact, in the high character of that made by Mr. Bryan Jackson, near Newcastle, who never fails to obtain the top price of the market, for butter of the finest quality; he having a cellar that might be taken as a pattern for all that part of the country. Of course, it is readily admitted that much depends on the mode that is adopted in the management of the dairy, commencing with the breed and feed of the cows, and ending with the manipulations of the butter; but the idea is gaining ground, that the best butter is to be made in a cellar, all other circumstances being equal: a remarkable revolution in public opinion, truly.

On reconnoitering amongst my friends, I found that several of them had substituted the cellar for the spring-house; and I do not know one who is not satisfied with the arrangement, except it be where the cellar is dug in a damp soil, or has been most injudiciously opened to the well, the evaporation from which fills the room with constant moisture, which may be found adhering to the walls, the ceiling and the wood-work, the shelves, and particularly the inside of the door, causing a damp and clammy feel, and a nauseous, mouldy smell, which the butter imbibes, to its lasting injury: indeed no good butter can be made in such places. But another revolution is taking place, even amongst the advocates for the cellar: it is no longer thought necessary to dig the cellar very deep, or to arch it over with stone or brick, with an air passage through it for ventilation—a *vault*, as it is more properly then termed: it is found sufficient, if the cellar be sunk a few feet below the surface of the earth, with a wide and shallow window on each side, the bottom of it level with the ground outside; well protected with a wire guard to keep out vermin, large flies, &c., and provided with a close glazed sash, which can be opened and closed at pleasure, by lifting it up to the *ceiling*, which ought to be no higher than the top of the windows; so that the air of the cellar can be ventilated by opening the windows of the two opposite sides, according to the way the wind sets at the time, shutting them quickly when necessary; for in cold, windy, or damp weather, the sooner the windows are again closed, the better. Indeed, to the management of the cellar in this particular, much of the success of dairying is to be attributed; cold and damp air being unfriendly to the secretion of cream, and its proper and entire separation from the milk. Hence, therefore, it is a bad practice to set the pans on the brick floor of the cellar; they ought always to be placed around on shelves, about three feet in height, and these, after being well washed with hot water, should be wiped quite dry, that no mouldy evaporation might take place to spoil the butter. The air near the floor of a dairy is always impure, being loaded with acid vapours and putrid exhalations, the density of which confines it to the

lowest part of the room; hence it is, that the doors of some dairies are made with lattice work, that the air near the floor, as well as that near the ceiling, might be ventilated at the same time; these lattices being furnished with sliding panels, to be kept close in bad weather. The milk cellar ought always to have a northern aspect, and be well shaded by trees, not growing too near the windows, so as to impede a dry current of air, or to create a moist atmosphere; this consideration being of more importance than would readily be imagined.

Cellars thus constructed and carefully attended, will, no doubt, supercede the use of spring-houses generally, before many years have passed away; by which the business of the dairy will be rendered more agreeable, less laborious, and far less inimical to the health of those, particularly of females, whose occupation it is to attend to its never ceasing duties. T. Miller.

Delaware, June 13th, 1843.

Site for Building.

Editors of the Cabinet,—I have noticed in the last number of Hovey's Magazine of Horticulture, some excellent remarks extracted from the transactions of the New Haven Horticultural, and the New Haven County Agricultural Societies, for 1841, on the subject of building, which I take the liberty of sending you. There is but little in detail, but the hints appear to me judicious. When a farmer is about to put up new buildings, it very frequently happens that he hardly appreciates the importance of doing it properly—both with reference to location and plan. It is not for himself only, or for the convenience of his family alone, that he goes to the expense of this outlay, but it is also for those who may come after him: and it needs no great gift of logic, to comprehend that if for the same amount expended, he can secure a certain pleasantness of situation, and multiplicity of conveniences, he does himself and those who follow him, injustice, if he does not look diligently and understandingly around, and avail himself of them. Yours, &c., S.

"A spot for building should be at an easy distance—not less than two hundred feet from the road, slightly elevated, and protected on the north and west, if possible, by a hill or grove, and near as may be to the centre of the farm. If there are a few forest trees scattered here and there, do not imitate the green horns who come from the cities to build where they can have a shady and cool retreat, and then deliberately cut down the native trees as being vulgar, because they are common, and in their place set up a forest of bare poles, as if for the pleasure of waiting for them to grow. Let such trees stand for shade and beauty forever, or at least until your fruit trees are mature. These should be planted in front and around the house; of the choicest varieties, and arranged with good taste and for future effect. Let the barns and all the out-buildings be placed at a convenient distance in the rear, and leave two or three shade trees in the barn-yard, that the cattle may have their share of comfort, for it should be remembered that trees are accommodating and economical; shady in summer, open in winter, and that a good forest tree drops leaves enough in the fall, to add half a load to the compost heap."

"The garden, of liberal dimensions, needs as nearly as possible, a southern exposure, and if there is an unfailing spring or a bright sparkling brook near by, so much the better. The farmer will find that by attention to such points as these, he may do without ginger-bread work upon his house, and that the simple and unpretending cottage, neatly kept, and looking out from among fruit trees and vines, will be far more attractive than a gaudily coloured house, exposed to the dust and heat of the turnpike. Why should he take from choice, the location which in cities, is only submitted to from necessity? When expensive houses are to be erected, a small sum paid for a proper plan, will be more judiciously expended than any other part of the outlay."

For the Farmers' Cabinet.

Agriculture in Mississippi.

Gentlemen,—As a reader of the Farmer's Cabinet, from its commencement up to this time, let me thank you for the very large amount of valuable knowledge I have derived from it; and allow me to offer my mite of information, as some return for that that I feel myself indebted for, over and above the trifling amount of subscription.

You seem to think that a sketch of the progress of agricultural improvement in Mississippi, would be of interest to your readers. Although, as you are aware, my *residence* here has been only of some little over one year's duration, yet even during that time I have seen a great change, and that for the better. The principal crop here raised for export—in fact, I may say, the only one—*is cotton, short-staple cotton.* Until within the last five years, it afforded such an enormous profit over the cost of

production—or rather, it yielded such *a heavy cash income*, that the cotton planter felt himself *above* paying the least attention to any other crop, or to stock. Not one in fifty, grew a sufficient supply of corn for his plantation; and fewer still, who had not to buy every ounce of meat, and yard of clothing that they required. Every one had his overseer, at a salary in the neighbourhood of a thousand dollars, to whom was surrendered the entire management of the plantation and negroes, whilst the planter himself was spending his time and the proceeds of his crops—frequently a crop or two in advance—in travel, or city life. There were cows and oxen on every plantation—because the former were needed to produce the latter, which were indispensable. But little care was bestowed on them in any way, and none on their improvement. To this, of course, there were *some few exceptions*—though but few.

Now the case is altered. The ruinous price of cotton has taught the necessity, and agricultural papers and societies have pointed out the way of changing all this. It was always supposed that pork could be purchased cheaper than it could be raised; and probably it was so, when cotton brought in $50 per bale, of 400 lbs.; and the only sort of *critters* they had to make pork of, were those shocking *varmints*—those long-nosed, alligator-looking customers, yet so common. But with cotton at $15 per bale—and thorough-bred Berkshires, at $20 to $30 per pair, which it was found could be kept fat on green oats, clover, peas, or almost anything, and killed at twelve months old, to make a half-barrel of mess pork—planters begin to find that they can make their meat at home. Cattle too, and sheep, are receiving an almost equal share of attention—large crops of corn are raised; and fields of common, and Egyptian, or winter oats and rye, are studding the country with their cheerful and refreshing appearance—more turnips, and sweet and Irish potatoes are raised—upland rice too; and even hemp. Feed is cut up before being fed out—corn chopped, and cotton seed boiled—cows are fed and milked; and the milk given out as a regular supply to the negroes. Tools and implements are made at home—as also cloth; and in some instances, which I hope will quickly increase, *cotton* bagging is made. The planter makes his home on his plantation, or at all events, attends to his own business, many dispensing with an overseer altogether. The aim now seems to be, to raise and produce everything at home that is needed, and have the proceeds of the cotton crop a net income—those *in debt*, exerting themselves to get out—and those *out of debt*, to keep so.

There is still, however, too much cotton produced—*entirely* too much. But for this, it would be difficult to propose an effective remedy. The *only* one will be, *the introduction of other staples.* Indigo was cultivated to advantage, and found profitable before the high price of cotton drove it out. *Upland* rice does well—and many of our river and bayou bottoms could be *flooded* with but little expense and labour. Silk, and wine can be made to infinitely better advantage than with you. Pork and wool are produced *at half the cost* that they can be in the North, and cheaper even than in the West. The New Orleans and West India markets could be supplied with hay, made from *Bermuda grass*, grown on lands too often flooded, to produce cotton or corn. It has been proved, beyond a doubt, that this delicate looking grass, at three cuttings, in one season, produced *over* five tons per acre, on land on which it was a volunteer growth.

You will see from this, that the opinion advanced by many, that the South *cannot* supply her own wants within herself, is, in a good many instances, an erroneous one.

Yours, &c., T. A.

Ingleside, Adams co., Mississippi,
May 15th, 1843.

Destruction of the Curculio by the use of Salt.—Now that the season is approaching when the Curculio begins to emerge from the ground, we are induced to request fruit cultivators to try the effect of salt in destroying them. We have been assured by several experienced fruit cultivators, that they have found salt a perfect preventative against the ravages of this destructive insect, and that they have had annually good crops of plums, while their neighbours have lost a larger portion of their fruit. Our friend Captain Lovett, of Beverly, informs us that he has applied half a peck or more of salt to each tree, spreading it on the ground as far as the branches extend. This is done about the first of June, and as it is washed into the ground by the rains, it appears to prevent the Curculio from making his way alive through it. The salt does not appear to injure the tree in the least. We would advise all our friends who have plum trees subject to the attacks of the Curculio, to try this remedy, and send us an account of their experiments for publication, in order that all the information possible may be elicited, which may lead to a certain remedy for this insidious enemy of the plum cultivator.—*Hovey's Magazine of Horticulture.*

Relative weight of roots and leaves.

An interesting series of experiments on the relative weights of the roots and of the green leaves and stems of various grasses, made by Hlubek, throws considerable light upon their relative efficacy in enriching the soil by the vegetable matter they diffuse through it, in the form of roots. The grasses were grown in beds of equal size (180 square feet,) in the agricultural garden at Laybach, and mown on the fourth year after sowing, just as they were coming into flower. The roots were then carefully taken up, washed and dried. The results were as follow:—

Kind of Grass.	Produce in		Produce in Roots.		Weight of dry Roots to 100 lbs. of Hay.
	Grass.	Hay.	Fresh.	Dry.	
	lbs.	lbs.	lbs.	lbs.	lbs.
1. Festuca Elatior—*Tall Fescue-grass* - - - -	124	36	56	22	61
2. Festuca Ovina—*Sheep's Fescue-grass* - - - -	90	30	——	80	266
3. Phleum Pratense—*Timothy-grass* - - - -	90	25	56	17	60
4. Dactylis Glomerata—*Rough Cock's-foot*	202	67	——	22½	33
5. Lolium Perenne—*Perennial Rye-grass*	50	17	——	50	300
6. Alopecurus Pratensis—*Meadow Fox-tail*	106	35	——	24	70
7. Triticum Repens—*Creeping Couch or Quicken-grass*	120	60	——	70	116
8. Poa Annua—*Annual Meadow-grass*	——	—	——	—	111
9. Bromus Mollis and Racemosus—*Soft and smooth Brome-grass*	——	—	——	—	105
10. Anthoxanthum Odoratum—*Sweet Scented Vernal-grass* - - -	——	—	——	—	93

A mixture of white clover, of ribwort, of hoary plantain, and of couch-grass, in an old pasture field, gave 400 lbs. of dry roots to 100 lbs. of hay—and in a clover field, at the and of the second year, the fresh roots were equal to one-third of the whole weight of green clover obtained at three cuttings—one in the first, and two in the second year—while in the dry state, there were 56 lbs. of dry roots to every 100 lbs. of clover hay which had been carried off.

The fourth column of the above table, shows how large a quantity of vegetable matter some of the grasses impart to the soil, and yet how unlike the different grasses are in this respect. The sheep's-fescue and the perennial rye-grass—besides the dead roots, which detatch themselves from time to time—leave, at the end of the fourth year, a weight of *living* roots in the soil, which is equal to three times the produce of that year in hay. If we take the mean of all the above grasses as an average of what we may fairly expect in a grass field—then *the amount of living roots left in the soil when a four-year old grass field is ploughed up, will be equal to one-sixth more than the weight of that year's crop.*

In an old pasture or meadow field again, when ploughed up, *the living roots left are equal to four times the weight of that year's hay crop.* If a ton and a half of hay have been reaped—then about six tons of dry vegetable matter remain in the soil in the form of roots.

In the case of clover, at the end of the second year, the quantity of dry vegetable matter left in the form of roots, is equal to upwards of one-half the weight of the whole hay which the clover has yielded. Suppose there be three cuttings, yielding four tons of hay, then *two tons of dry vegetable matter are added to the soil in the form of roots, when the clover stubble is ploughed up.*

But the quantity of roots, like that of green produce, is dependant upon a variety of cir-

cumstances. It will sometimes, therefore, be greater, and sometimes less than is above stated. It may be received as a rule—not without exceptions perhaps, yet still as a general rule—that whatever causes an increased produce above ground, will cause a corresponding increase in the growth of roots. Thus nitrate of soda, which gives us a larger yield of hay, makes the roots also stronger and deeper, and the sward tougher and more difficult to plough. Hence it is, that the farmer is anxious that his clover crop should succeed, not merely for the increased amount of green food or of hay it will give him, but because it will secure him also a better after crop of corn.

This burying of recent vegetable matter in the soil, in the form of living and dead roots of plants, is one of those important ameliorating operations of nature, which are always to some extent going on, wherever vegetation proceeds. It is one by which the practical man is often benefited unawares, and of which—too often, without understanding the source from whence the advantage comes—he systematically avails himself in some of the most skilful steps he takes, with a view to the improvement of his land.—*Lectures on Agricultural Chemistry.*

For the Farmers' Cabinet.

The Chaumontelle Pear.

In the Massachusetts Ploughman, the Hon. B. V. French, makes mention of the Chaumontelle pear, being "an indifferent fruit on a gravel soil, but on a rich, moist soil, it has *sometimes* grown delicious." Now here is convincing evidence that much indeed depends on climate, soil and situation, for this variety of the pear, in France, and particularly in the island of Jersey—where it is said to rain 365 times a year, is acknowledged to be the very finest of all the tribe, the best bearer, the most valuable at market, and withal so delicate, that they will not bear their own weight in transportation, without crushing. It is customary to send from Jersey great quantities of this delicious fruit, to England and elsewhere, and the mode they adopt to fix the price per pear, is curious: they have a board with different sized holes through it, each hole being marked with the price at which the pear—which will fill it in passing through, shall be charged in the market; the largest bringing twenty-five cents each, by the hundred, and that readily. They have also a singular mode of packing them for exportation: a flat box is prepared with a number of small hooks driven into the inside of the cover; to these the pears are tied by their stems singly, so they swing with the motion of carriage, free of each other: they would crush with their own weight, were they to lie on their sides.

It is customary for the military governor of the island, to send every year, a handsome present of these pears to the royal family: one year they were late in ripening, when the governor received a note from the princesses, the daughters of George the III., saying they had not forgotten the annual tribute, and hoped that he would remember it.

My wish in this communication is, to ascertain if any of the readers of the Cabinet, have this delicious pear in cultivation, and if grafts could be obtained another year? I have an idea that they might be made to flourish and bear "delicious fruit" *always*, in some portion of our fine country—possibly on the other side of the Alleghaneys, or even amongst us on the seaboard, if a "moist rich soil," prepared too, by excavating the subsoil, and partially filling with stones:—(the island of Jersey is of primary formation, a solid rock of granite,) and perhaps adding a pavement of the same around their trunks, according to the mode adopted by Mr. Jabez Jenkins, of West Whiteland. In conclusion, I would ask, with all due deference, do we not cultivate a greater variety of fruits than is necessary, or even profitable? In our catalogues of trees for sale, we often find great numbers advertised, of secondary, and even of inferior quality, admitted even so, by the cultivators themselves; and for what earthly purpose, no one can tell: for the best must be *the best*, and there is an abundant number of those, sufficient to satisfy the most fastidious, as well as to suit all soils, and climates, and situations. In the peach, this rage for variety has been carried to excess, as we see in the great quantity of inferior fruit that is brought to market in kindly seasons. It is asserted, that at a single horticultural establishment, there are no less than 2165 different varieties of fruit, viz.: 910 apples, 510 pears, 160 plums, 60 cherries, 30 peaches, 20 nectarines, 14 apricots, 115 grapes, 50 figs, 24 nuts, 230 gooseberries, 10 currants, 8 raspberries, and 24 strawberries. Would it be uncharitable to suppose that two-thirds of this number must be worthless? C. W.

Bucks co.

Mr. Scott, of South Carolina, has succeeded in engrafting the lilac on the ash; this is done in France with perfect success, and nothing can be more beautiful than the drooping ash, hung with the elegant flowers of the lilac.

From the Cultivator.

Guano as a Manure.

Messrs. Editors,—This article, now making a considerable noise in the world, and attracting the attention of agriculturists in Europe and America, was first introduced into the United States in 1830. At that time the writer of this article received a barrel of it, and distributed it to many persons, reserving a small portion for his own use. From an ignorance of the proper application of it, probably, it either destroyed every thing on which it was applied, or produced no effect. So far as the writer heard from those to whom he gave it, one or the other of these effects resulted in every case. Since then it has been occasionally introduced in small parcels, but nothing favourable to its high value, has as yet resulted from its use in this country, so far as the writer is aware. But it has not been tried with sufficient care and information of its nature; and therefore no judgment of its value can be formed from any experiment made with it in this country. The object of this paper, therefore, is to lay before American agriculturists all the information at present to be had, of its true character, the materials of which it is composed, and the results of experiments made with it in England.

Baron Humboldt first introduced this article to the notice of Europe. He considered guano as the remains of birds' dung, that has accumulated on the shores of certain islands on the coast of South America, Pacific side, between the 13th and 21st degrees of south latitude, from time immemorial. Its composition, according to Volckel, (the most recent analysis,) is as follows:

Urate of ammonia, - - -	9.
Oxalate of ammonia, - -	10.6
Oxalate of lime, - - -	7.
Phosphate of ammonia, - -	6.
Phosphate of magnesia and ammonia,	2.6
Sulphate of potash, - - -	5.5
Sulphate of soda, - - -	3.8
Sal ammoniac, - - -	4.2
Phosphate of lime, - - -	14.3
Clay and sand, - - -	4.7
Organic substances not estimated, containing 12 per cent. of matter insoluble in water, soluble salts of iron in small quantity, water,	32.3
	100.0

From this analysis, it appears that about one-third of the whole mass of guano is salts, of which ammonia is the base; one-fifth is phosphoric salt, and one-fifth a salt of which lime is the base; and that all the other ingredients, (potash, soda, &c.,) are universally considered highly valuable, and even necessary ingredients of good soils. But the ammonia, of which so large a portion of guano consists, is the most important of all nutritious salts, on account of the large amount of nitrogen it affords. It is a subject, however, worthy of consideration, whether we cannot obtain all the valuable properties of guano directly from the chemists, in the form of the various salts of which guano is now known to be composed, at less expense than we can guano itself.* A very respectable mercantile firm in Baltimore, who have received a moderate quantity of guano for sale, informed the writer that the cost of importation, all charges included, (and including the duty assessed by government, of 20 per cent.,) was seven cents a pound. This price, it is believed, will effectually prohibit its use in this country, no matter how valuable it may prove to be as a manure; because from two to four hundred weight will be required to the acre, and thus it will cost from $14 to $28 per acre, to manure the ground. But if it cost seven cents to import it, of course it must be sold at eight or ten cents, to yield a profit to the importer, and of course it will not be imported unless it yield this profit. It is, however, hoped that there is some mistake as to the cost of importation, because it is well known that the article retails in England, at 20 shillings per hundred weight. Of course, the profits of the importers, and also of the retailers, are added to the cost of importation; and if all these together, amount to only four cents and nine-tenths per pound, it is difficult to conceive how the simple cost of importation into this country, should be seven cents.

As to the value of guano as manure, all who have published the results of their experiments in England, concur in the opinion that it is very great. The writer of this, has searched the agricultural periodicals of Great Britain, published during the last two years, and has not been able to find a single objection as to its high value. On the contrary, all the writers concur in the opinion that it can be very profitably applied as a manure, when it costs twenty shillings a hundred weight.

The manner of applying it in England, appears to have been various. Some mixed it with pulverized charcoal, some with wood ashes, others with seed wheat, oats, or bar-

* *Artificial guano* is regularly advertised for sale in the English agricultural papers, at £15 per ton, which is 25 per cent. cheaper than the guano itself.

ley. Some sowed it by itself, broadcast, others applied it in the drills, hills, &c. Mixing it with pulverized charcoal, in the proportion of one measure of guano to three of charcoal, and sowing it broadcast, seems to the writer, to be the best plan, unless a watery solution should be preferred. The quantity of guano applied to each acre, was generally two hundred weight; but several experimenters considered that a larger quantity would have yielded more profitably, and the result of experiment confirmed the opinion. One writer concluded that eight hundred weight might be applied to the acre with advantage; and that if more were applied, it would injure, if not destroy the crop.

There is one striking defect in all the reports above referred to—not one of them describes the *kind of soil*, whether stiff, sandy, or otherwise, on which their experiments were made. Perhaps they supposed that simply naming the kind of *crop* grown, would indicate the kind of soil. It might do so in England, but not in this country, where every kind of crop is raised, or at least attempted to be raised, on every kind of soil almost.

The crops to which guano was applied in England, were wheat, rye, barley, oats, turnips, ruta-baga, Italian rye-grass, clover, hops, and artificial grasses generally. The produce of land manured with it, compared with that on which other manures were applied, was various in comparative amount, but always exceeded that of all other manures. For example, a piece of land was manured with guano, at the rate of two cwt. per acre, and another with 18 loads of horse manure per acre, both seeded with barley at the same time. The produce was 10 per cent. more from guano than from horse manure, and the latter was 50 per cent. more costly. Another piece of land was manured, one acre with six cwt. of bone dust, and another with two cwt. of guano, and both seeded in wheat. The product of the bone dust was 36 bushels, that of the guano was 50 bushels one and a half pecks. Another field was divided into four parts, to the first was applied three cwt. per acre, of guano, to the second three cwt. of nitrate of soda, to the third 20 tons per acre, of farm-yard manure; the fourth was left without manure. The whole was seeded with Italian rye-grass, and when harvested, the product was as follows:

Guano yielded,	14	tons,	15	cwt.	26	lbs.
Nitrate of soda,	14	"	13	"	37	"
Farm-yard manure,	13	"	2	"	96	"
Without manure,	7	"	0	"	108	"

The above examples are deemed sufficient to afford a fair view of the value ascribed to guano in England, as they may be considered averages of a great number of results. They may be sufficient to induce a *trial* of the article in this country; for we must not forget that many articles that have received the highest commendation in England, have proved ***worthless*** in this country. It is not very easy to find a reason for this, but it is true nevertheless. In nearly all the experiments with guano, the results were very nearly the same as those with nitrate of soda, and in the very extensive one just above given, it will be seen that the effects of the nitrate of soda, were very nearly the same as those of guano. Now so far as I have been informed, the application of nitrate of soda as manure, in this country, proved of no value. A friend informed me a few days since, that he had used it extensively, without the slightest beneficial effect. So it appears that what is good manure in one country, may be perfectly inefficient in another. On this subject, I will trouble you again shortly. GIDEON B. SMITH.

Baltimore, Feb. 13th, 1843.

Effects of Soap-suds on Cabbages.

I BELIEVE it will be a thankless piece of service for one gardener to teach another how to grow cabbages and cauliflowers, yet as these crops of vegetables have failed this season in various parts of the country, the following notice may perhaps, be of use to our cottage readers. Wherever soap-suds have been used plentifully, cabbages and cauliflowers have grown luxuriantly. I have made several inquiries of others who have used them, and in no one instance have I heard of a failure where soap-suds have been applied. I intend to try them over brocoli, to see if they will prevent them from clubbing. Others may do so likewise, and make known the results. Whether the alkali in the water has prevented the enemy from destroying the roots, or given the roots more vigor to resist the attack, I do not know; but one thing is certain—where such matter has been applied, it has produced the most beneficial results. I think cottagers may take a lesson from this, and save that which would nourish their languishing crop, for it is a pity to see a pool of filthy water polluting the neighbourhood with its stench; while, within a few yards of it, the vegetables of a garden are dying of starvation.—*Gardener's Chronicle.*

IF a man cheats you, quit dealing with him; if he is abusive, quit his company; if he slanders you, take care to live so that nobody will believe him.

Locust Years.

Some discussion in regard to the exact year in which the seventeen year locusts make their appearance, is now going on in the various newspapers. A correspondent of a Hartford paper, says that he well remembers three locust years—1792, 1809 and 1826, and states that he has learned from his father, that 1758 and 1775 were locust years also. There being 17 years between all these dates, he concludes that 1843, which completes another like period, will bring a return of the insect named. In opposition to this, a gentleman of Philadelphia states, that he well remembers the locust year in 1783, when, at the age of ten years, he was taken by his father to "Lebanon Garden," situated at the corner of Tenth and South streets, and then some distance from the city, where were thousands of locusts and hundreds of people assembled to see them. He also remembers their appearance in 1800, 1817, and 1834, and has memorandums of all these periods. According to this authority, the locusts will not again appear until 1851. Our own recollection is distinct in regard to 1817, as also in regard to 1834. In 1817, we remember that they were so numerous, and the noise of their singing so loud, that two persons walking together in the woods and conversing, could not hear each other speak, unless their voices were raised to a very high pitch.

Here are positive discrepancies between two statements, both of which bear authenticity upon their faces. How are they to be reconciled? Gideon B. Smith, of Baltimore, (good authority by the way,) in a communication to the Baltimore Clipper, has put this matter in a more "understandable" light. He states, from actual observation, that locusts appear every seventeen years, in certain districts of country, and in like periods do not occur in corresponding years. But his communication to the Clipper, will be best understood, if given as we find it in that paper.—*Phil. Saturday Courier.*

THE SEVENTEEN YEAR LOCUSTS.

Messrs. Editors,—Your account of the seventeen year locusts, copied from the Richmond Whig, sent me into my note book, in which I find that this interesting insect will appear *during this month*, in Middlesex county, and the adjacent parts of New Jersey, at Poughkeepsie, and adjacent parts of New York and Massachusetts, and in Fauquier county, and adjacent parts south, in Virginia. I am under the impression, that the editor of the Richmond Whig will be disappointed in their appearing in the neighbourhood of Richmond *this year*. He shall be gratified however, in May, 1846, when the locust is to appear in Prince George's county, and adjacent parts, embracing, I expect, Henrico county, and of course, Richmond city. If the locust does not appear in the city of Richmond this year, it will add another district to the list, and I shall be much gratified if editors or postmasters, in the place indicated, or in any other place where they may appear this year, will send me information of the fact. I have now authentic proof of the existence of sixteen districts, in which these locusts appear respectively, every seventeen years, and perfectly distinct, and disconnected from each other. Gideon B. Smith.

Urine of Animals.—"The quantity of liquid manure produced by one cow annually, is equal to the fertilizing of one acre and a quarter of land—a space by far greater than is sufficient for her support, on the soiling system—producing effects as durable as do the solid evacuations. A cord of loamy earth saturated with this urine, is equal to a cord of the best rotted dung. If the liquid, and the solid evacuations, including the litter, are kept separate, and then, soaking up the liquid with loamy earth, it has been found they will manure land in proportion, by bulk of seven liquid to six solid, while their actual value is as two to one. It has been calculated that 100 pounds of the urine of cows afford 35 pounds of the most powerful salts ever used by farmers. The simple statement then in figures, of difference in value of the solid and liquid evacuations of a cow, should impress upon all, the importance of saving the last, even if it be in preference to the first."

A Gem.—Give us such boys as have been blessed with the instructions of a pious mother. This qualification for which no substitute can be found on earth. Never would we despair of the child who has been used in his infancy, to hear the precepts of heavenly truth inculcated in the accents of maternal love. Truths thus distilled, live forever in the memory. They are interwoven with all the sensibilities of the soul. They are the fortress of conscience, not impregnable, it is true, but indestructible. They furnish the mind with chords which, in later life, seldom fail to vibrate to the touch of faithful expostulation. They are as inextinguishable sparks, which being seemingly smothered under a heap of corruption, may be fanned by the breath of friendly and spiritual counsel, into the pure and genial flame of piety.

Jones' Multiplying and Equalising Bee-Hive.

To the Editors of the Cabinet,—Increased attention has, within a few years, been given to the raising of bees—by some as a source of pleasure and amusement, and by others as one of profit; and among them all, there has existed a variety of opinions in relation to the manner of treatment that would be the most successful, and as a natural result, many different kinds of hives have been constructed, some of which seem to have the recommendation of a correct theory.

In the construction of a bee-hive, the objects which seem to the writer most desirable to be gained, are simplicity and economy of construction, in such a manner as to save the time, trouble, and labour, of watching and hiving bees; afford the best protection against the intrusion of the moth or miller; save the increase of the bees; keep the swarms equal; make them most secure against robbing; change the comb before it gets to be so old as to injure the health of the bees; save all the labour of the bees during the working season—which is but short—and have an opportunity to take away at pleasure, a portion of the best honey, without any injury whatever to the swarm.

Jones' "Multiplying and Equalising Bee-hive," enjoys a pre-eminence over all others—from its construction—to accomplish the above-named objects. It is simple, and may be made either plain or ornamental. It has two equal parts, which when joined, make the whole size of the hive 21 inches, from the top to the bottom; 19 inches in breadth, and 10½ in depth. It divides perpendicularly in the middle, and the bottom of each part, may be so graduated as to make the aperture for entrance large or small, as necessity may require, and in the upper part, about six inches perpendicular, are partitioned off, so as to make room for the boxes or drawers, in which the bees deposit the best honey, which may be taken out when they are full, and others supplied. Its advantages and the manner of treatment, I cannot now give in detail, and therefore must be brief.

When a fulness occurs, or the bees show indications of swarming, the hive is to be taken in the evening, when the bees are all at home, and divided, and an empty half added to each full half, when the bees will immediately commence working to fill the empty half; and you have, in fact, accomplished all that was necessary in swarming, as you have two swarms which are nearly equal in size, and with comparatively a very small amount of labour. The increase is made sure, and the swarms equalised, and they will be much more profitable to the owner than when they swarm, and are hived in the old fashioned way. It affords greater protection against the moth than any other kind of hive, and for this reason, when a swarm leaves the old hive, they always take more than half the quantity of bees, and frequently swarm again in three to ten days, when the quantity of bees in the hive becomes still further reduced, and the comb unprotected; then the miller enters and deposits its eggs, which soon hatch into moths, and destroy the swarm, and no construction of a hive can prevent their entering: the only protection is to have the comb well covered with bees—all apiarians agree that a strong swarm is not liable to danger from the intrusion of the moth—which Jones' hive effectually secures—as the same bees and the same quantity, occupy the same comb after division that they did before, so that no part is left uncovered. The bottom may be closed during the robbing season, so as to leave the aperture so small that but two or three bees can pass in and out at a time; which aperture they can easily protect. By the process of division, one portion of the comb is always new, and when one part gets to be three years old, take the hive as late as the 20th of July, divide as for swarming, and add an empty half to the new part, lay the half containing the old comb near by, and rap on it until the bees leave and return to the hive, which they will readily do, if the comb be old.

It not unfrequently occurs that swarms in the old fashioned hives, hang upon the outside of the hive some days before swarming, and sometimes they hang out for weeks, and sometimes for the whole season, without swarming. By the division of Jones' hive, a vacancy is made, and they immediately commence work to fill it, and thus save the labour during the best part of the season, which is so frequently lost. The boxes or drawers at the top, are made so as to hold about eight pounds of honey, and may be removed when they are full, or sooner if desirable.

Y.

To propagate a choice kind of potatoe from a single bulb, it is but to plant it in a moderate hot-bed, and strip off the shoots as they appear, placing each in a single pot for a season, and then plant the whole abroad; more than sixty large plants producing a full crop, have been thus raised from a single bulb, in one season.

Pursuit of Knowledge.

We have the testimony of the wisest men that have lived, that toil is the price of knowledge. Sir Isaac Newton says, that to patient industry he owed whatever of knowledge he had acquired; and the present wonder of our country, Elihu Burritt, the "learned blacksmith," who, at less than 30 years of age, had already learned, more or less perfectly, fifty different languages, and studied various branches of science, says: "All that I have accomplished, or expect, or hope to accomplish, has been and will be by that plodding, patient, persevering process of accretion which builds the ant-heap, —particle by particle, thought by thought, and fact by fact." The Rev. John Todd, in his *Student's Manual*, a work that every seeker of knowledge should read, very appropriately remarks:—"Those islands which so beautifully adorn the Pacific, and which, but for sin, would seem so many Edens, were reared up from the bed of the ocean by the little coral insect, which deposites one grain of sand at a time, till the whole of those piles are reared up. Just so with human exertions. The greatest results of the mind are produced by small but continued efforts. I have frequently thought of the motto of one of the most distinguished scholars in this country, as peculiarly appropriate. As near as I remember, it is the picture of a mountain, with a man at its base, with his hat and coat lying beside him, and a pick-axe in his hand; and as he digs, stroke by stroke, his patient look corresponds with his words,—*Peu et peu*—'little by little.'"

He who expects that, by waiting, he will be able to rise by some bold stroke, will probably resemble at last the countryman who loitered on the river bank, hoping that the stream would exhaust its waters. But the young man who believes that knowledge is worth possessing, and is willing to apply his energies, has much to encourage him. He may point to some of the brightest ornaments of the nation, and of the world, and tell of the time when they were poor and obscure. Roger Sherman was a shoemaker, and was encumbered with the care of his widowed mother and helpless family; yet he became deeply skilled in mathematics, afterwards read law, was appointed a judge, and rose to eminence as a jurist and politician. It has been remarked of him that he never said a foolish thing in his life. General Greene. the favourite of Washington, was a blacksmith; and had only the elements of an English education given him. "But to him, an education so limited, was unsatisfactory. With such funds as he was able to raise, he purchased a small but well selected library, and spent his evenings and all the time he could redeem from his father's business, in regular study." Benjamin Franklin, it needs scarcely be said, was a practical printer; and emphatically the artificer of his own fortune. Rittenhouse, who was pronounced second to no astronomer living, was a farmer in early life; and it is said that when a boy, the smooth rocks in the field, and the fences by the way-side, were often covered with his arithmetical calculations. He became eminent as an astronomer and mathematician. Nathaniel Bowditch, the celebrated navigator and scholar, was poor, and enjoyed few opportunities in youth to acquire education; all his science and his fame were the fruit of persevering application. Who was Fulton, whose inventions in the applications of steam power, have added millions to the wealth of our country, and especially of the West? And who was Whitney, the inventor of the cotton gin, by which the wealth of the South was doubled?

Let the industrious student read his country's history, and he will find there are few of its eminent men, but have risen to greatness without the inheritance of fortune's favours. And among the living, he will find labourers and mechanics standing conspicuous in our deliberative assemblies. Youth should study too, that they may make useful and respectable private citizens; for such as seek to store their minds with useful knowledge, and who train their reasoning powers to think efficiently, will rise, notwithstanding the frowns of fortune, if they are true to themselves, and correct in their moral deportment. . When we look around upon our substantial farmers, master mechanics and prominent citizens, how large a portion were poor boys! while the worthless and dissolute are often those who commenced life under favourable auspices.

But there are difficulties in the way! Thousands would rejoice to be learned, were it not for the toil. They would gladly enjoy the gratifications that wealth affords, but they are unwilling to labour for the prize. Think you that the men we have named, rose to distinction without effort! Or rather, did they not climb the ascent step by step? Burritt, to whom we have already alluded, is not merely a blacksmith by profession, but a daily labourer for eight hours at the anvil. William Cobbett was once a common soldier, and afterwards a member of the British Parliament. He says of himself: "I learned grammar, when I was a private soldier on the pay of six-

pence a day. The edge of my berth or my guard-bed, was my seat to study in; my knapsack was my book-case, and a bit of board lying on my lap, my writing-table. I had no money to purchase candles or oil; in winter time it was rarely that I could get any light but that of the fire, and only my turn even of that. To buy a pen or a sheet of paper, I was compelled to forego some portion of food, though in a state of starvation. I had no moment of time that I could call my own; and I had to read and write amid the talking, laughing, singing, whistling and bawling, of at least half a score of the most thoughtless of men; and that too, in the hours of freedom from all control. And I say, if I, under circumstances like these, could encounter and overcome the task, is there, can there be, in the whole world, a youth that can find an excuse for the non-performance?"

Youth are apt to err in attributing too much to genius and favourable opportunities. There certainly are grades of intellect, and with similar opportunities all would not succeed equally; it is likewise true, that wealth may buy advantages; but it often brings its disadvantages. It leads youth to rely too much on their opportunities; and the mind lacks the energy which adverse circumstances generally impart. The young man who relies on his genius and college facilities, will not be apt to distinguish himself by his attainments. Let the youth who is ready to despond, turn his attention to biography. He will there learn what man has done, and he knows our motto. We would recommend to his attention an excellent book, entitled, "*The Pursuit of Knowledge under Difficulties.*" It has been republished in this country, and the Rev. Francis Wayland, has promised a volume of American characters. The reader may learn from these books, the difficulties under which others have laboured. He will find poverty, sickness, and physical misfortune opposing in vain. Sanderson, and Euler, and Milton were blind; but did they waste their time in idle repining? Who can peruse their memoirs without a thrill of admiration?

It is related of a gardener, who had learned much by solitary application, that, on surprise being expressed that he should understand *Newton's Principia*, he exclaimed, "Can I not read? And if I have books what more do I want?" We find even the deaf and dumb becoming profound scholars; what excuse then can he have, who can hold free communion with his fellows? And there is Laura Bridgman, now in the Massachusetts Asylum for the Blind, who can neither *see*, *hear*, nor *speak*, and her sense of *smell* is very imperfect; and yet she has learned the use of language, so as to convey her ideas and learn the wishes of others. It is all a great error for a young person to think that because he is not healthy, or has not leisure and books, and learned professors to instruct him, that therefore he cannot learn. Too many books are often a great disadvantage, by distracting the attention and preventing close application. A small, *well selected* library, is better for the student than a great variety of books. The text books should be studied very closely, very intently and perseveringly; it is not sufficient that they be read once. The ancients had a maxim to convey their confidence in the effect of this mode of application; "Beware of the man of one book." He whose reading is light and various, seldom thinks closely, and none need fear him in argument.

How am I to think? Be assured that to make thinking effectual, it must be diligent, undivided, concentrated. One great object of education, I might say *the* great object, is to acquire this mastery over the mind; the amount of knowledge stored up, is a matter of secondary importance. He whose mind is disciplined, can at any time add to his stock; he can learn facts, and reason upon them; but he who has not learned to think properly, is in danger of exhausting his stock. The mind of one is a living spring, of the other, a mere cistern that may be filled and emptied. The mechanic acquires manual dexterity in using tools, by long practice and patient training;—the mind of the thinking man, is the power by which he operates, and the dexterity with which he can use it, depends upon the power he has acquired to concentrate its efforts and direct its energies. The habit of trifling, instead of studying, is fatal to improvement; and though the doctrine of applying the birch to quicken the ideas, is less popular now than in times past, there may be persons who need physical stimulus to keep the attention excited. But this necessity cannot long exist, unless with the wantonly perverse.

The American boy has much to encourage him; for the wide field of preferment is open before him, and, earlier or later, merit is apt to be rewarded. Let him remember that though but a boy now, a few years will place him in a different relation to those around him; and these years may be idled or improved. If idled, the ignorant boy will be an ignorant man; but if improved, the ignorant boy may become the intelligent, useful, eminent man. Consider the truth contained in our first motto, "What man

has done, man may do;" and then fearlessly and with full and persevering purpose of heart, practise the resolve, "I will try."—*Parke's Philosophy of Arithmetic.*

For the Farmers' Cabinet.

Lime, a Stimulant.

Admitting to the fullest extent, all that has been advanced by way of eulogium, in the use of lime as a fertilizer, a neutralizer, and a sweetener, I have been accustomed to view it in another light, which has with me, the sanction of experience. I find it the strongest of all stimulants, rendering what was sluggish and inert, quick and volatile, producing a vigor of growth in the plant, often astonishing. And I have compared this result to the stimulating effects of ardent spirit upon the human frame, which is sure to bring out all the vigor that is in it, enabling it to perform prodigious labour, and sustain, for a while, the greatest bodily exertion. But, unfortunately, the parallel holds still further, for like it, the effects are but momentary, and when the unnatural stimulus is expended, a lassitude is felt, in exact proportion to the excitement that had been administered. And this is a law of nature which must be obeyed, before an equilibrium can again be brought about.

Now, reasoning from analogy, must not the same deleterious effects that are observable in the man addicted to the use of ardent spirit, follow a too copious use of lime in the soil? And does not this consideration account for the fact, that in Devonshire, where far more lime is used than in any other part of England, the average produce of grain is much lower than on any other of their soils of very inferior natural quality? It would therefore appear, by parity of reasoning, that lime should be followed by something for it to feed on, namely, barn-yard or other substantial manures, that add staple to the soil, and counteract the too stimulating effects of an over-dose of lime; an article better calculated to produce grass than grain. A man accustomed to take alcohol on an empty stomach, soon finds himself in a woeful state of exhaustion; quite unable to sustain even a moderate share of exertion for any considerable length of time—would it be allowable to apply the same mode of reasoning to the system of liming to excess?

It is asked, with much deference, what would be the results of an extra pulverization and thorough working of the soil, by fallowing on proper occasions? Would the system operate precisely in the way in which lime is said to act, in sweetening the soil, neutralizing its acidity, and adding to its fertility, by repeatedly exposing it to the action of the air and rain, and the influence of the sun—effects, which it is averred, would be found of the most lasting benefit, and causing an evenness and regularity in the crop, so necessary to its full developement.

Was Jethro Tull acquainted with the use of lime?

R. D.

Montgomery co., Pa.

Salting and preserving butter.—We annex a receipt upon this subject, and will take this occasion to say, that we have no doubt it is a good one, though we should prefer one we have used and *know to be good.* The paragraph below states that butter, packed away as therein directed, will keep ten years. Upon this part of the subject we cannot speak from any knowledge of our own; but with regard to the time it will keep, put away agreeably to the receipt we shall give, we are enabled to speak advisedly, as our butter was potted in the month of June, and was as fresh and sweet when opened for use, in the month of December following, as when first made, having preserved all its richness of flavor.

We took six ounces of fine Liverpool blown salt; four ounces of saltpetre—and six ounces of loaf sugar; and after pulverizing the whole, so as to make a fine powder, we incorporated it with the butter, after the buttermilk had been thoroughly worked out, at the rate of one ounce to the pound, then packed it away in stone jars, the tops of which we covered, first with clean cloths, and then with bladders, so as to completely exclude the air. Thus treated when fresh and well made, we have no hesitation in saying, that butter would keep any desirable length of time, though we should be unwilling to risk the opinion that it would keep, as maintained in the receipt below, ten years:

To salt butter.—Beat well up together in a marble mortar, half a pound of common salt, with four ounces of powdered loaf-sugar; to every pound of newly made butter (the milk being well drawn off by beating) put an ounce of the mixed powder, incorporate it well; put the butter in pots for keeping. In about a month—not before—it will be fit for use, and it will continue for ten years as good as butter newly salted.—*American Farmer.*

Salt your Cows.—All cattle need more salt when they are first turned to grass than afterwards. Let them have access to it twice a week, in May and June.

Experiments in making Sugar from Corn-stalks.

THE following, taken from the minutes of the transactions of the French Academy of Science, we copy from the American Farmer. It will be read with deep interest.

"At the sittings of this body in September last, a series of reports and researches was submitted by M. M. Biot and Soubeiran, on the subject of making sugar from Indian corn. It seems that, as far back as 1834, M. Pallas placed before the Academy an account of his having extracted two per cent. of sugar—entirely like that of the sugar-cane—from the stalk of the maize. M. Robiquet again reported upon Pallas's communication, suggesting that the greatest yield of sugar could probably be obtained immediately after the flowering of the plant, and that its quantity would be greatly lessened when the grain began to be completely formed. In 1839, M. Pallas again communicated experiments as to the effect, on the saccharine qualities of maize, of removing the ear at several stages of its growth. Upon this paper, Messrs. Bouissingault and Biot again reported, pointing out the defects of M. Pallas's experiments, and indicating the proper method of investigating the matter.

"We give this little sketch of the progress of this conversion of maize to the purpose of furnishing sugar, as interesting to those who, in this country, are prosecuting the same object. Monsieur Biot's last paper is to the following effect:

"'The stalks upon which they operated, were taken from the Jardin des Plantes. Some of them had been separated from their heads; others had not. They report that the sugar of maize is precisely that of the sugar-cane, mixed, however, with a small quantity of sugar of fecula. The juice of the maize, which had been castrated, contained per litre, 113 grammes, or 12 per cent. of sugar; that of the non-castrated, gave 124 grammes, or 13 per cent. These experiments prove that castration is rather injurious than otherwise, and that if maize is to be used for this purpose of extracting its sugar, it must be in its normal state. Whether this new industry on an extensive scale, would be a profitable one, is a question which, at the present moment, may be matter of dispute; but there is one consideration in its favour, supposing the productiveness of the maize to be such, if cultivated to the necessary extent, as to render the cultivation of the beet-root unnecessary. The latter must remain on the ground during the whole of the summer, and the moment of harvest is too near that of the winter-sowing for corn, to leave time to prepare the ground for receiving the new seed. Maize, on the contrary, runs through all the phases of vegetation in a few months, and it can be gathered in, as it is not necessary to leave it on the ground until it has attained to full maturity, and sufficiently early to have abundant time to prepare the ground for the winter corn-seed. M. Thenard, one of the members of the Academy, alluding to that part of the report of Messrs. Biot and Soubeiran, in which it is stated that there is a small quantity of sugar of fecula, mixed with the cane sugar of the maize, observed that the beet-root contains crystallizable sugar, unmixed with sugar of fecula, and that probably the presence of the latter in the experiments made on maize, was due to the mode of manipulation, and that it does not exist naturally in the plant.'"

For the Farmers' Cabinet.

Cone's Dynamometer.

MESSRS. EDITORS,—I find in the "American Agriculturist" the description of a cheap, simple and effective Dynamometer, which is said, upon trial, to have satisfied every one as to its accomplishing all that could be desired. It is as follows:

"Take the beam of any patent scales that will weigh 10 or 12 cwt., suspend it by the upper hook, and put sufficient weight upon the lower hook to balance the beam; then hang upon the small end, a one pound weight, and put sufficient weight upon the lower hook to balance, and ascertain the number of pounds on the lower hook, requisite to balance the one pound: the beam used by Mr. Cone, required 32 lbs. on the weight-hook to balance one pound on the small end. Now, hitch the lower hook to the clevis of the plough, and the team to the upper hook; the small end of the balance or beam, running out upon the land-side at right angles to the plough; and from the small end of the beam, bring a wire near to the handle of the plough; attach to this wire the upper end or hook of a common spiral balance, and make the other end of the balance fast to the plough, when the spiral balance becomes the index to the force required to move the plough. Thus, if the index of the balance marks 14 pounds, then the force exerted on Mr. Cone's scale would be, $14 \times 32 = 448$ lbs. The principle is perfect; the only thing necessary, is to hit upon some plan to have them uniform throughout the Union.

In applying it to a plough, it should be so constructed as to work perpendicularly, instead of horizontally; and this could be done,

by having a guide made fast to the beam of the plough, in which the beam of the Dynamometer should play; the balance could then be made fast to the upper slat or round of the plough, and be more convenient for observation; and besides this, it would not be affected by inequalities on the surface of the ground."

The thing certainly appears very feasible, and I hope that some of your intelligent readers will put it to the test of a careful and rigid examination, and report upon it in the pages of the Cabinet; its simplicity recommends it strongly to the notice of every one of our agricultural friends, and it is a subject that demands their most serious regard, as being the only mode, *in the absence of the power of speech in our teams*, by which the *tremendous* difference which exists between the draughts of different ploughs, can be exhibited or explained. C. W.

Warren co., N. J.

Our correspondent's remark reminds us of a late conversation with Mr. H. Roberts, of Spring-Mill, Montgomery county, after a trial between the Centre-draught plough and one of Dickinson's—the plough, it will be remembered, that took the premium at the last Philadelphia Agricultural Society's ploughing match: He said, "the land at last got so hard that my small horses could no longer work the Dickinson plough; my brother, therefore, gave me the Centre-draught plough, No. 5, and took the Dickinson, when my horses walked away with it, almost as though they had nothing after them: but when my brother started his strong team with the Dickinson plough, they stopped and drew up, as though they had met with an obstacle; nor would they move it until they were urged." Here was a living Dynamometer, that spoke the truth, without the possibility of any mistake. J. P.

Daguerreotype.

The following is a general description of the art of the Daguerreotype, as practised by its distinguished inventor: A plate of silvered copper, after having been well cleaned, and freed from any greasy substance, by polishing it with dilute nitric acid, fine tripoli, or colcothar of vitriol, is placed in a box containing iodine, till its surface is covered with a golden yellow film of that evaporable substance. The plate being carefully kept from light, is placed in the *camera obscura*, so as to receive upon its surface a distinct image of the landscape, or of the single figure, or group of figures, to be painted. After remaining a number of minutes, depending on the intensity of the light, the plate is taken out of the *camera*, and placed in what is called a mercury box. There it is exposed to the vapour of mercury, raised by a spirit lamp; and after a certain time, the operator, looking through a little window in front of the box, observes the landscape, or figures, gradually developing themselves on the surface of the plate, by the adhesion of the white mercurial vapour to those parts of the picture which had been acted upon by the light. When the developement appears complete, the plate is placed in a vessel containing either a saturated solution of common salt, or a weak solution of the hyposulphite of pure soda. By the action of either of these fluids, the coat of iodine is dissolved, and the picture is permanently fixed. It is then simply washed in distilled water,—dried, and placed in a square of strong pasteboard, covered with glass. If we now carefully examine the picture thus produced, we shall find that its shadows are nothing more than the original polished surface of the silver, reflecting a dark ground, and that the lights are the parts of the silvered surface, which have been more or less whitened by the vapour of mercury. If the plate is made to reflect a luminous surface, such as a white dress, or the sky, the shadows will appear luminous and white, and the lights dark, so as to give what may be called a *negative* picture. In this remarkable representation of nature, there is depicted, with the minutest accuracy, all her finest forms; but her gay colours are wanting; and the blue sky, and the green turf are exhibited in the same monotony of light and shadow, as when we view a highly coloured landscape, in water colours, or in oil, by the light of a monochromatic lamp.—*Edinburgh Review, Jan.*, 1843.

Cast-iron Buildings.

We take the following from the January number of the Journal of the Franklin Institute.

"A correspondent of the Times, says:—Buildings of cast-iron are daily increasing, at a prodigious rate in England, and it appears that houses are about to be constructed of this material. It is proposed that the walls shall be hollow, so that the whole house may be heated by a single stove in the kitchen. A three-story house, containing 10 or 12 rooms, will only cost about £1000; and it may be taken to pieces, and removed to another place, at an expense of about £25. It is understood that a large number are about to be manufactured, to be sent to Hamburg, for those who have had their habitations burned."

A heart properly disciplined, will enable the head to accommodate itself to whatever pillow the vicissitudes of fortune may place under it.

For the Farmers' Cabinet.

The Silk Culture.

At length we have something novel in the way of silk culture. A Mr. Gill, of Ohio, has patented a process and apparatus, that appear likely to render much more secure, if not certain, the labours of the cocoonery during the last stages of operation; the failures attendant upon which, have been found so ruinous heretofore. His plan is, to feed the worms after their second moulting, in tents; to *fan* them when the weather is unhealthy, and to *rock them in cradles.* The account published by Mr. Gill is so curious, and withal so natural, that I am desirous to see it preserved in the pages of the Cabinet. He says;—"My operations in feeding and manufacturing during the last year, have furnished employment for about fifty hands on an average; and I have manufactured in that time, upwards of $9,000 worth of silk goods, consisting of all the varieties of staple silk in demand, equal to any imported; and sold them readily at a reasonable advance on their cost of production and manufacture; and my efforts have been crowned with complete success. In the past five years of my operations, I have frequently met with failures, and occasionally entire loss of worms from extremely warm, close and confined weather, *but never from cold.* I have tried all the plans of feeding and ventilating used or known in the United States, but found them all deficient in accomplishing the object desired; but by studying the subject—the nature, habits and wants of the worms, I have been enabled to adopt a plan which meets every important object. I shall feed very extensively on it the coming season, and fully believe that my invention will work as complete a revolution in the growing of silk, as the discovery of the gin has in that of cotton. I have named my invention, 'Gill's Patent Feeding Tent, and Silk-worm Ventilating Cradle.'

"These tents and cradles may be constructed of any size, and of any materials suitable, keeping in view the principles of construction. I adopt, as a convenient size, a tent 15 feet wide, and 50 feet long; side posts, four feet apart, driven into the ground, and standing six feet above it, each side: for centre posts, eight feet apart, driven into the ground, and standing eight feet above it, which gives two feet pitch to the roof. The ridge and eaves-poles to be fastened along the tops of each of these three ranges of posts. The tent cloth to be of linen, or any other fabric suitable, and impregnated with paint, tar, &c., if desired. The linen covering is most convenient in breadths of 10 feet; to extend from the bottom on one side, over the top or ridge of the building, and down to the bottom on the other side, with weight-poles or rollers, at the bottom on each side, so that the tent cloth may be rolled up to any height, to give free circulation of air, or exclude it, with rain or sunshine, at pleasure. The rollers of cloth should, when down, reach to within six inches of the ground, with a drain under them, to carry off the water: the ground forming the floor.

"The feeding ventilating cradles are constructed to embrace the following principles, and of sizes to suit the breadth of the tents, leaving an aisle along the centre of the room, and between each cradle. To furnish a tent 15 feet wide, the cradles should be 12 feet long, and have three rockers four feet long, made of plank 15 to 18 inches broad, and about one and a half inch thick; with a trough resting across their centres, let in by a notch in the rockers, 12 feet long, one foot wide, and one end closed. From the points of the rockers attach upright posts, 30 inches long, inclining outwards, and a cap attached to their tops on each side, parallel with the trough. To this cap and side of the trough, attach laths one-eighth of an inch apart, the whole length of the trough, on both sides, so as to form when finished, a rack about two and a half feet deep and five feet wide at the top; and across the trough fasten slats about one foot apart, on which to lay the mulberry branches, and on these branches put the worms, after their second moulting, or when about half grown, and feed them until they spin, with branches with their leaves on, cut about one foot long. Suspended over each cradle, is a fan made of bonnet-boards, or any other thing suitable, with a pendulum, coming down from the shaft which is across the tent in two of the upright posts; this pendulum, the person who attends the feeding, can put in motion, which also rocks the cradle; thereby removing all impure air about the worms, and shaking down the dry leaves, litter and excrements into the trough, into which a bucket of water is occasionally poured at the upper end, and all is washed out at the lower or open end, leaving it pure and clean. The motion of the cradle is agreeable to the silk-worm, approximating to the waving of the branches while feeding on the trees in a state of nature. Another important advantage is, that no worms can fall through to the ground, and those that happen to fall down in the brush, crawl to the lath sides, and mount easily to the top. They also readily spin among the clean, bare brush, making but little floss, and seldom double cocoons. A fender made of tin,

or any other suitable material, is affixed to the rockers, that prevents mice, ants and other insects from ascending to the worms. The plan throughout is simple, cheap, and easy of application; it curtails the expenses more than one half, and more than doubles the quantity and quality of silk from a given quantity of eggs."

The plan appears feasible and easy of adoption. At first there would appear a danger of the tents suffering damage from the effects of storms, but their use would be confined to a short space of time; as it is to be understood, I presume, that the worms are to be reared to half their growth in other buildings, and be transferred to the cradles, there to remain until they spin; when, at the end of the season, the tents could be taken down and packed carefully away for another year; this is no doubt an economical plan, the re-erection of a tent being the labour of an hour or two only; and a situation might be chosen most convenient to the business, perhaps in the plantation, to save the labour of carrying the branches to a distance. It is calculated, that a tent 50 feet long by 15 feet wide, would contain six cradles of 12 feet in length, and that each cradle would feed 15,000 worms. Mr. Gill proposes to dispose of individual rights for three bushels of merchantable cocoons, or ten dollars cash. J. C.

For the Farmers' Cabinet.

Bone Dust, &c.

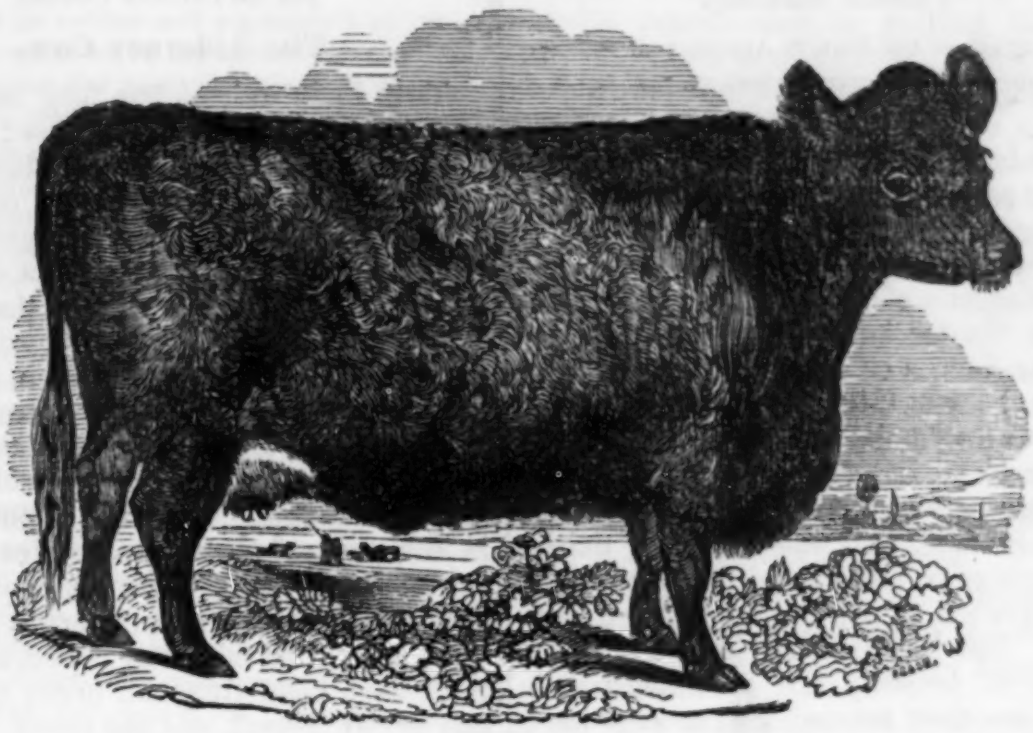
Some two years since, I became thoroughly convinced of the great value of bone manure, so much so, that I only wished to know the best mode of applying it, and then would purchase no other. I also wished to know whether the ground bones, or the sawings and turnings of the button makers, were the best; accordingly, I bought from three different persons, as many kinds, at 16 to 45 cents per bushel, near 300 bushels, which I applied from the 1st of Fourth month, until the latter part of Eighth month, at the rate of 10 to 40 or 45 bushels per acre, on orchard grass sod, timothy, and clover of the first, second, and third years' growth; on wheat and turnips broad-cast; and on potatoes, corn, pumpkins, peas, beans, onions, celery, radishes, strawberries, and other things in the hill and drill; and have anxiously waited ever since, without saying, and for obvious reasons not wishing to say, anything against it; but have now come to the conclusion, that the same bulk of good stable manure would have done more good to the crops and the land; for I cannot even now, see any difference in the appearance of the present crops of grass, where it was sown last year on the wheat, and on other different pieces of grass. It is certainly not a profitable manure for my farm, either on the clay, loam, or sandy part; what the reason is, I leave for wiser heads to determine. My principal reason for making the present communication, is to caution others from going quite so deeply into it at first, as I did, but try a smaller quantity, and in the meantime, let the bones go to England, or to those whose soil they may suit.

I find that glue dung is the cheapest manure I can purchase; my manner of using it is to mix and ferment it with stable manure, in the proportion of about one-third of glue dung with two-thirds of other manure, and turn it over twice, then apply it in the usual way. Spent, or soapers ashes, I have also used with very good success; harrowed in with oats, clover and timothy, on a loamy clay—four two-horse wagon loads per acre.

I am quite disappointed this spring, in my observations as to the manner in which the cut-worm makes its appearance in the corn. I always supposed the egg was deposited in the ground, and remained there during the winter, and from which the worm was produced in the spring, in time to make its ravages on the corn. My corn field this year, was a stiff sod of blue grass and timothy, and I expected the worms would be bad in it; accordingly I commenced searching for them as soon as the corn was fairly up, and found them in many cases completely covered, except at top, in a web or cocoon, immediately by and attached to the corn, just under the surface of the ground; I have destroyed hundreds of them found in this way, which proves to my mind, that the eggs must have been deposited there only a few days before. There are various things recommended to prevent them from injuring our grain, but I have found the Frenchman's plan most successful, as recommended to destroy fleas; "first catch them." The proposal to plant onions in the hills with the cucumbers, to prevent the striped bug from attacking them, has with me, proved a total failure, as most of the hills have been destroyed, either wholly, or in part. S. S.

Spring-Wood Farm, Sixth mo. 1st, 1843.

That man is far behind the spirit of the age, who follows any system of husbandry or agriculture, merely because his father followed it before him, and without looking into the reason or propriety of it, or reflecting on its susceptibility of improvement. It is not reverence for example, but ignorance of improvement, that influences a man to do so.—*Maine Farmer.*



THE GALLOWAY COW.

This cut contains the portrait of a beautiful Galloway cow, belonging to Mr. Gurney. There is, perhaps, no breed of cattle which can be more truly said to be indigenous to the country, and incapable of improvement by any foreign cross, than the Galloways. The Short-horns, elsewhere, have improved the cattle of the districts to which they have travelled; they have, at least in the first cross, produced improvement, although the advantage has not often been prolonged much beyond the second generation; but even in the first cross, the Short-horns have done little good in Galloway; and as a permanent mixture, the choicest of the Southern bulls have manifestly failed. The breeders in that county, are now, therefore, perfectly satisfied that their stock can only be improved by adherence to the pure breed, and by care in the selection. It has been remarked in this, as in other breeding districts, that cows and heifers of good quality, are to be met with everywhere, but that it is difficult to find a Galloway bull free from defect. Too many breeders have become careless from this circumstance, and have contented themselves with a bull of moderate pretensions; and the form and value of their cattle have thus been depreciated, yet not to the extent that might have been expected, for the imperfections of the sire do not always appear in the progeny; the sterling characteristics of the Galloway cattle often breaking through, although obscured in one generation; and forming a strong argument in favour of that grand axiom in breeding—"dam the best."

The Galloway cows are not good milkers; yet, although the quantity of milk is small, it is rich in quality, and yields a large proportion of butter. A cow that yields from 12 to 16 quarts of milk per day, is considered a very superior milker, and that quantity will produce more than a pound and a half of butter; but the average milk of a Galloway, cannot be reckoned at more than six or eight quarts per day, during the five months after feeding her calf; while during the next four months, she does not give more than half that quantity; and for two or three months she is dry. The Galloway cattle are straight and broad in the back, and nearly level from the head to the rump; round in the ribs, and good between the shoulders and the ribs, and the ribs and the loins; broad also in the loin, without any projecting hook-bones; in roundness of barrel and fulness of rib, they will compare with any breed whatever; and when viewed from above, the whole body appears beautifully rounded, like the longitudinal section of a roller. They are also long in the quarter and rib, and deep in the chest, with less space between the hook, or hip-bones and the ribs, than in most other breeds; a consideration of much importance, the advantage of length of carcass depending on being well ribbed home, or as little space as possible lost in the flank.

Cheese Making.

The Journal of the French Academy of Sciences, contains the following communication, read by M. de Romanet.

It has been frequently remarked with surprise, by persons unacquainted with the circumstances, that the French, although possessing rich pasturage, and all the other apparent means of operation, should be tributary to Switzerland, England, and other countries, for the better sorts of cheese consumed in France. Why, it is asked, should they go to England for Cheshire cheese, and to Switzerland for Gruyere? The answer is, because in France property is so divided and sub-divided, that there are no dairies on the extensive scale required for carrying on this branch of rural manufacture with success. But it will be again asked, if the divisions of property are so numerous in France, are they not equally, or even more so, in Switzerland, and yet the cheese trade is a continued source of wealth in that country? This question brings us precisely to the main point of M. de Romanet's paper. In Switzerland, until of late years, the making of Gruyere cheese was limited to a few wealthy persons; for as it was necessary, for the quality of the article, that the cheese should be very large, and that the milk should be coagulated on the day of its being taken from the cow, it was only by keeping a large number of cows, that the manufacture of Gruyere cheese could be carried on. The owner of one, two, or three cows, was, therefore, unable to profit by the demand for this particular kind of cheese in foreign countries. At length, however, an ingenious mode of enabling the poor peasantry to compete with the more wealthy, was hit upon. It was proposed to establish a cheese-dairy upon a joint-stock principle; to keep an account of the quantity of milk delivered by each person, and to apportion the profits arising from the sale of the cheese, to the different contributors, according to the amount of their contributions. The idea was carried into execution, and has become general in Switzerland. M. de Romanet proposes that the plan should be tried in France. It could not fail to be successful, for how many peasants are there keeping only one cow, who are unable to dispose of the milk to advantage. In this way, a constant and regular market could be secured, and the dairy-keeper, to whose care would be entrusted the interests of the mass of contributors, would be able to give the fullest extension to the arrangements which are necessary, in order to compete successfully with the wealthy agriculturist.

For the Farmers' Cabinet.

The Alderney Cow.

This little animal has long been valued and sought after for family use; for which her quiet disposition and her abundant supply of fine cream, particularly qualify her. Several have lately been brought from Europe, by gentlemen, probably not aware that they can be obtained at half the expense, within 20 miles of Philadelphia; retaining all the good qualities, and even the colour of their progenitors—the two dun cows imported by Mr. Sims, more than thirty years ago.

We have lately been told of one of these in the possession of Mr. Charles Duval, of Germantown, only three years old, whose milk is so rich, that from every seven quarts of it, one pound of butter is obtained. The trials have been frequent, under the inspection of Mr. Duval, and the result constantly the same. If, as is believed by competent judges, the quality of the milk improves as the cow advances in age—what may be expected from her a few years hence? She is not considered superior to others of the same family, and had she reached Germantown, after a perilous voyage across the Atlantic, and not after an easy journey of one day from the farm on which she was bred, her celebrity would be greater, perhaps, than it now is. T.

Bucks co., Pa., May 25th, 1843.

How to make money.—The Picayune thus instructs its readers, and the people generally:—Let the business of every body else alone, and attend to your own. Don't buy what you don't want. Use every hour to advantage, and study to make even leisure hours useful. Think twice before you throw away a dollar; remember you will have another to make for it. Find recreation in looking after your business, and so, your business will not be neglected in looking after recreation. Buy low, sell fair, and take care of the profits. Look over your books regularly, and if you find an error of a cent, trace it out. Should a stroke of misfortune come upon you in trade, *retrench*, work harder, but never "fly the track." Confront difficulties with unflinching perseverance, and they will disappear at last. Though you should even fail in the struggle, you will be honoured, but shrink from the task and you will be despised. By following these rules, however, you need never say "fail." Pay debts promptly, and so exact your dues—keep your word—take the papers—Advertise.

Neal's Patent Lard-candle Lamp.

This lamp is the invention of a gentleman in Ohio, who, being disappointed in the operations of all the lard lamps that he had seen, "inasmuch as they did not continue to burn brightly after the first few days of use, when the purer and lighter portions of the lard had been consumed; emitting a red and dingy flame from a fuzzy wick, with an unpleasant smell; requiring much attention and frequent cleansing, and leaving at the end of the burning, a portion of the lard so impure, as to be unconsumable; the trouble and inconvenience of filling, being also great"—succeeded, after much thought and labour, in constructing a lamp which he believes will be found to obviate all these objections; for by means of an air-tight plunger or follower, working in the chamber of the lamp, a portion of the lard is forced up through a tube, which has the form and appearance of a candlestick, into the flaming wicks of the lamp, where it is retained by pressure from below, until it is consumed, when more is sent up, by screwing down the plunger or follower, with the finger and thumb, in the neatest and most convenient manner imaginable. Thus the whole of the lard is consumed, leaving no residuum, and affording a white and brilliant light to the end.

For a considerable time we have had one of these lamps in operation, and are not able, after a strict scrutiny, to discover any imperfection in its construction. The lard in use is very inferior, the object being, a fair trial under common treatment; yet the light afforded is most brilliant, and at an expense much below the cost of oil. We therefore confess a preference for the lard-candle lamp; but lest this feeling should be thought to amount to a *prejudice* in its favour, we give below, the answer to an inquiry, which we addressed to an intelligent friend, who has had two of these lamps in constant use for many months, and would take the opportunity to recommend them to the notice of our readers. These lamps, made of Britannia ware, and of tin, are sold, the former at one dollar each, the latter at fifty cents; by Messrs. Filley & Kisterbock, Nos. 436, & 467, Market street, Philadelphia, with directions for use. J. P.

To the Editor of the Cabinet,—Dear sir, at your request, I send you the result of my experience in the use of Neal's Patent Lard-candle lamp. My acquaintance with the inventor extends no further than seeing his name upon the lamp in question, and my sole object in making this communication is, that the public may know the advantages to be derived from its use. By actual experiment, I have ascertained that the cost of an equal amount of light, is about one-third that of good sperm oil, while. with a flame of the same size, a stronger and purer light is emitted. The little trouble experienced in filling these lamps —the lard being put in cold—and keeping them in order for burning, is another advantage they possess, even over oil lamps, and especially over those lamps which require the lard to be first melted. A great objection to the ordinary lard lamps is, the difficulty experienced in getting them to burn well when first lighted; these lamps, however, burn with a clear and bright flame from the first. In burning it as a night lamp, my plan is, to use but one wick, cutting it off pretty close to the tube, and pressing down the piston or follower, until the cup at the top of the lamp is filled with lard; in this way it will burn eight or ten hours, without further attention.

Respectfully, E. W. Mumford.

Camden, N. J., June 29th, 1843.

JUST PUBLISHED, A SECOND EDITION OF THE

"FARMER'S LAND MEASURER

Or Pocket Companion;"

Showing at one view the Content of any piece of Land, from dimensions taken in yards;

With a set of useful Agricultural Tables, &c.

By James Pedder, Editor of the Farmers' Cabinet.

The publishers, induced by the success attending the sale of the first impression of this invaluable little work, and desirous of placing it within the means of every one engaged in the pursuits of agriculture, have determined to meet the exigences of the times, and issue a second edition at 37½ cents per copy. No work has ever met with more unequivocal marks of approbation: the concurrent testimony of the agricultural community is in its favour; it has, indeed, become the *Farmer's Pocket Companion*, and proved itself of the greatest assistance in the every-day walk of his profession, while the possessors of large tracts of land have especially learned the value of its aid "by its use," which could not have been appreciated but by the test of experience. To understand the mode of its application, requires the study of a few minutes only; the rules laid down for calculation, are within the range of the commonest capacity,—any one acquainted with the first rule in arithmetic, *Addition*, being competent to the task; for where is the farmer who cannot step three feet to a certainty?

It is published by Thomas, Cowperthwait & Co., Philadelphia, and sold by Kimber & Sharpless, No. 50, N. Fourth street;—at the office of the Farmers' Cabinet; and at D. O. Prouty's Seed and Implement Store, No. 176, Market street, Philadelphia.

Items in Domestic Economy.—Use Spts. of Turpentine to remove grease spots from clothes. It dissolves the grease, and then soap the more easily removes it. Grease may be removed from undyed woollen by a solution of pearl-ash.

Agricultural Exhibition, Sale, &c.

Premiums proposed by the Philadelphia Society for promoting agriculture, for the exhibition to be held on Wednesday and Thursday, the 4th and 5th of October, and the trial of ploughs to take place on Friday, the 6th, at the *Lamb Tavern*, (Thompson's,) on the Lancaster turnpike, one mile from the Schuylkill Permanent bridge.

HORSES.

For the best thorough-bred stud-horse, $12
For the next best do. do. 6
For the best stud-horse adapted to the field and road, 10
For the next best do. do. 5
For the best thorough-bred brood mare, 10
For the next best do. do. 5
For the best mare adapted to the field and road, 10
For the next best do. do. 5
For the best horse colt, between two and four years old, 8
For the next best do. do. 4
For the best filley or mare colt, do. 8
For the next best do. do. 4
For the best horse colt, between one and two years old, 4
For the next best do. do. 2
For the best filley or mare colt, do. 4
For the next best do. do. 2

NEAT CATTLE OVER 2 YEARS OLD.

For the best Durham bull over three years old, $12
For the next best do. do. 6
For the best do. between two and three years old, 10
For the next best do. do. 5
For the best bull of Devon blood, 8
For the next best do. do. 4
For the best Ayrshire bull, 8
For the next best do. do. 4
For the best Alderney bull, 8
For the next best do. do. 4
For the best bull of other improved breed, 8
For the best Durham cow over four years old, 10
For the next best do. do. 5
For the best do. between two and four years old, 10
For the next best do. do. 5
For the best Durham heifer between two and three years old, 6
For the next best do. do. 3
For the next best heifer of other improved breed, between two and three years old, 4
For the next best do. do. 2
For the best cow of Devon blood, 8
For the next best do. do. 4
For the best Ayrshire cow, 8
For the next best do. $4
For the best Alderney cow, 8
For the next best do. do. 4
For the best cow of mixed blood, 6
For the next best do. do. 3
For the best yoke of working oxen, reference being had to their performance, 10
For the next best do. 5
For the best ox or steer, 10
For the next best do. 5

NEAT CATTLE UNDER TWO YEARS OLD.

For the best Durham bull between one and two years old, $8
For the next best do. do. 4
For the best bull of other improved breed, 6
For the next best do. do. 3
For the best Durham bull calf between four months and one year old, 6
For the next best do. do. 3
For the best Durham heifer between one and two years old, 6
For the next best do. do. 3
For the best heifer of other improved breed, do. 4
For the next best do. do. do. 2
For the best bull calf of improved breed, between four months and one year old, 4
For the next best do. do. do. 2
For the best Durham heifer calf between four months and one year old, 6
For the next best do. 3
For the best heifer of improved breed, do. 4
For the next best do. do. do. 2
For the best steer between one and two years old, 4
For the next best do. do. 2

SHEEP.

For the best Bakewell or Leicester buck over one year old, $4
For the next best do. do. do. 2
For the best do. do. under one year old, 2
For the next best do. do. do. 1
For the best four do. do. ewes, over one year old, 4
For the next best do. do. do. 2
For the best four do. do. ewe lambs between four and twelve months old, 2
For the next best do. do. do. 1
For the best Southdown buck over one year old, 4
For the next best do. do. do. 2
For the best do. do. under one year old, 2
For the next best do. do. do. 1
For the best four do. ewes over one year old, 4
For the next best do. do. do. 2

For the best four do. ewe lambs between four and twelve months old,	$2
For the next best do. do. do.	1
For the best Merino buck over 1 year old,	4
For the next best do. do.	2
For the best four do. ewes, do.	4
For the next best do. do. do.	2

HOGS.

For the best Berkshire boar,	$4
For the next best do.	2
For the best Berkshire sow,	4
For the next best do.	2
For the best boar of other breed,	4
For the next best do. do.	2
For the best sow of other breed,	4
For the next best do. do.	2
For the best litter of pigs of any breed, not less than six in number,	4

Stock entered for these premiums, cannot compete for others.

No animal that has previously taken the Society's first premium, will be allowed to compete in the same class.

Ample evidence will be required as regards the pedigree, age and character, of all stock entered for premiums.

AGRICULTURAL IMPLEMENTS.

For the best plough, the merits thereof to be decided by trial,	$10
For the next best do.	5
For the best Drill machine,	4
For the next best do.	2
For the best Straw or Hay cutter,	4
For the next best do. do.	2
For the best Corn sheller,	4
For the next best do.	2
For the best display of agricultural implements,	8
For the next best do. do.	4

The ploughs intended for trial, must be at the exhibition during the whole time. Premiums will be awarded to the best ploughmen:

For the best,	$5
For the next best,	3

AGRICULTURAL PRODUCE.

For the best five pounds of fresh butter, a silver butter knife, value	$5
For the best firkin, or jar of salted or preserved butter, not less than 20 lbs., a silver butter knife, value	5
For the best sample bushel of wheat,	3
For the next best do. do.	1
For the best do. of rye,	2
For the next best do. do.	1
For the best do. of corn in ears,	2
For the next best do. do.	$1
For the best do. of oats,	2
For the next best do. do.	1
For the best display of agricultural produce, generally,	4
For the next best do. do.	2

A statement of the mode and manner of making and preserving the different kinds of butter, will be required of competitors.—The preserved or salted butter, must have been put up at least two months previous to the exhibition.

SPECIAL PREMIUMS.

For such animals as have received the first premium of this or any other Agricultural Society, accompanied with a certificate or satisfactory evidence thereof.

For the best stud-horse,	$20
For the best bull of any breed,	20
For the best cow of any breed,	20

Any animal having before taken the above premium, and thus gained the highest distinction, will not again be permitted to contend.

A PLOUGHING MATCH,

For the trial of ploughs and ploughing, will take place on Friday, the 6th of October, at 10 o'clock.

The judges are authorized to withhold premiums, where the object is not entitled to distinction; and where but one of a class is exhibited, they will award such premium as they think it merits. Those persons who intend bringing animals for competition, must inform the Committee of Arrangement before 10 o'clock, on the first day of the exhibition.

Competition is open to the whole Union.

All stock, &c., contributed, must remain on the ground during the two days of exhibition.

☞ The public sale of live stock will take place on the second day of exhibition, and will be conducted by Wolbert & Herkness.

James Gowen,
Isaac W. Roberts,
Dennis Kelley,
Henry Chorley,
Algernon S. Roberts,
Aaron Clement,
Lewis R. Willard,
William S. Torr,
Isaac Newton,
P. R. Freas,

Committee of Arrangement.

Convention of Breeders.

(CIRCULAR.)

Albany, June, 1843.

The State Agricultural Society of New-York, desirous that some fixed principles should be established as the basis of excellence in the various descriptions of farm-stock, without reference to their *relative* merits as breeds, have appointed the undersigned a committee, with instructions to call the particular attention of breeders throughout the States, to the importance of the subject, and to make the necessary arrangements for a Convention to be held at the Library room of the American Institute, in the city of New York, during its sixteenth annual Fair, in the month of October next, the day to be hereafter noticed; at which breeders of stock and those interested in agriculture, are most respectfully urged to give their attendance, with a view to a full and free discussion of those forms, qualities and properties, which most conduce to intrinsic value; and also that the distinctive characteristics of each separate breed, may be as closely defined as possible.

The Society believe that the decision of such a meeting will offer to the agriculturist the best information that can, at present, be elicited; and which, they trust, may be so satisfactory to the mind of every intelligent breeder, as to lead to greater uniformity of action and opinion, and *possibly* become a standard with them, by which to judge and be judged, in all cases of competition.

With these views of the subject, the committee hope you may deem it of sufficient importance to be present at the proposed Convention, and lend to its discussion the aid of your experience and talents.

The committee will be obliged by any suggestions, in the interim, you may consider of sufficient importance to be communicated to them in relation to this subject.

Francis Rotch,
E. P. Prentice,
C. N. Bement,
George Vail,
Lewis F. Allen.

☞ Editors of the several Agricultural papers in the United States, are requested to publish or notice the above.

Mr Botts, of Newburg, obtained a premium for corn, the yield being 205½ bushels of ears per acre. The land was ploughed in February, and the second week in May, it received 15 wagon loads of manure and two bushels of salt per acre.

For the Farmers' Cabinet.

West India Corn and Oranges.

To the Editors,—I notice in your number for the present month, an extract from the Farmer's Encyclopædia, in which the writer, in speaking of Indian corn, states that "in the West Indies, it rises 30 feet in height; but with all that gigantic size, it produces only a few grains on the bottom of a spongy cob, and is counted on only as rough provender." I am surprised to see such a statement in a work of so much respectability, for it is at variance with the truth, and calculated to mislead many of your numerous readers. I resided in the British West Indies for upwards of 30 years, and state, without the fear of contradiction, that in those islands they generally raise good crops of corn. Its height is rather under that grown here, and the grain something smaller than our best 8 and 10 round yellow—but weighs heavy. The returns per acre, certainly fall short of what they are in the States, on good soil well manured and carefully cultivated, but I have raised 25 bushels per acre, from land which had never been manured, and that with less care than is usually bestowed on it here. The same writer also states, that in the West Indies, "the pulp of the orange is spongy, badly filled with juice, and has too much of a forced flavour to be pleasant." I am free to admit, that there are in that section of the world, oranges which correspond with this description; but at the same time I must remark, that there is also abundance of oranges equal to the best produced in any part of the world. J. T.

Hamilton Township, N. J.,
June 20th, 1843.

THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

Philadelphia, Seventh Month, 1843.

"Gardening for Ladies; and Companion for the Flower Garden, by Mrs. Loudon. First American, from the third London edition. Edited by A. J. Downing," well known as the author of a Treaties on Landscape Gardening, Cottage Residences, &c.

We owe thanks to J. W. Moore, Bookseller, 23 Minor street, who has placed the above work upon our table. It is one, which has been long wanted. The simplicity and clearness, with which the author explains every branch of her subject, from the rough handling of the spade, to the more delicate operations of the budding knife, attract at once, and delight the novice and the amateur, who have had but little practical experience. Clear and explicit, and withal very

sprightly directions, and hints, will be found in the first part—Gardening for Ladies,—in relation to *stirring the soil—manuring—transplanting—watering—pruning—training—grafting—flour pots—the green house. &c., &c.*, which will not fail to induce, or to enliven, and discipline a taste for the labors, and duties, and delightful enjoyments of the flower garden. A taste for the rearing, and training of flowers is particularly appropriate to woman, and its cultivation may often be attended with happy moral influences.

The second part—a Companion to the Flower Garden—is a Dictionary of the English and Botanic names of the most popular flowers, with directions for their culture, &c., &c., and contains a great mass of instruction and information, from the humble *Anemone* that perfumes your footstep, to our own magnificent *Agave Americana.*

"The great enjoyment of Gardening, is in my opinion," says the author, "only to be obtained by the amateur who gardens himself, and who understands the principles, or reasons upon which each operation is founded; and therefore, I should recommend all persons fond of gardening, and especially ladies who have sufficient leisure, to manage their gardens themselves, with the assistance of a man, to perform the more laborious operations."

This work—price $1,50—as well as others generally, relating to Agriculture, Horticulture, Botany, Plants, &c., may be obtained, wholesale and retail, as above, 23 Minor street, at the lowest prices.

A Communication on the manner of raising, and using potatoes, signed "A Farmer" from Chester County was mislaid, and did not come into the Editors hands, till a few days ago. It would now seem unseasonable: it shall be attended to in the spring.

BIBLICAL CABINET.

The 3rd and 4th Nos. of Neander's History of the Christian Religion, during the first three centuries, now in the course of publication, by James M. Campbell & Co., 98 Chesnut street, have come to hand. The work will probably be completed in the next number.

The Agent for the Patentee of Jones' Multiplying, and Equalizing Bee Hive, a Communication from whom, appears on page 369, has left a very neat model at our office, where it with several others, may be examined. The theory upon which it is based, seems plausible, and we know not why it should not work well. We frequently hear it said, that bees would as leave live in an old hollow tree, as in a palace. Perhaps so:—but the Honey Bee has been long domesticated among us; and so it must be, if regarded either as a source of profit, or amusement. This being the case, the kind of hive that is *best*, becomes a primary question to such as would avail themselves of the industry of this curious creature.

We take this occasion again to refer to Bevan's superior work on the Honey Bee. It contains a great variety of information on the subject; and may be had either of the Publishers, Carey & Hart, corner Fourth and Chesnut streets, or at this office.

After a retirement of three years from all connection with the American Rail Road Journal, and Mechanic's Magazine, D. K. Minor resumes his former station as Co-editor, with Geo. C. Schaeffer. The first number of this Journal, was issued, we believe, eleven years ago, when less than 100 miles of Rail-way were completed upon all our main lines. We have now probably, more than 500 locomotive engines running on between four and five thousand miles of Rail Road, and have expended at least one hundred millions of dollars in their construction. The facilities and rapidity of transportation would seem to be almost as great as need be desired. By means of Rail Roads and Canals, our great business marts have brought distant neighborhoods, almost literally, to their very doors, so that a barrel of flour may be sent from Pittsburgh, for a trifle more than we pay the carter who hauls it from the *depot* in Broad street to our own cellar.

This Journal has laboured long and ardently in the cause, and may be congratulated upon the effect produced.

The number for the present month has come to hand and may be examined at our office, where subscriptions will be received and money forwarded.

We observe from the English papers, that H. Colman, late Editor of the Genesee Farmer, who left this country for England, about three months since, attended a special meeting of the Council of the Royal Agricultural Society, on the 11th of Fifth month, as an honorary member. The Society, previously to his leaving here, had very courteously tendered to him a welcome reception. No doubt our friend is at home among them.

Subscriptions for his Agricultural Tour and Survey, are received at this office. See No. 7—page 228, of our current volume.

A Letter has been received from Edward Harris, of Moorestown, N. J., who went out with Audobon to the Rocky Mountains, dated the 1st ult., thirty-six days from St. Louis, and hoping to reach the mouth of the Yellow Stone, in about ten days. Some *new* birds, and many *rare* ones had been procured. The party were all well, and in fine spirits.

The quantity of rain which fell in the 6th month (June) 1843, was nearly an inch and three quarters of an inch.....1.676 inches.

Penn. Hospital, 7th mo. 1st, 1843.

There was less rain fell last month, than in any corresponding one, since 1832. On the morning of the 2nd ult. the fields in this vicinity were white with frost, which materially injured the cucumbers, beans, tomatoes, &c., and apparently prostrated the corn; the corn however, finely recovered in a week; and there is now no lack in our market, of the other vegetables. The mountains near Quebec were covered with snow, and some flakes were observed here. The frost extended through the Atlantic states, at least, as far south as Virginia, and west as far as we are advised.

The United States Gazette says, the first hogshead of Tobacco which has been shipped from the territory

of Iowa, was received in St. Louis, this spring. We all know, that a very few years ago, the whole territory was a wilderness.

SHORT ADVERTISEMENTS,

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. The money to be paid in advance.

POUDRETTE.

Arrangements have been made by the subscriber with D. K. Minor, of New York, for the sale of this valuable manure. It may be obtained at the office of the Farmer's Cabinet, No. 50, North Fourth street, where we expect to keep a supplyconstantly on hand. The price will be two dollars a barrel, where one or two only are taken—for three or more, it will be somewhat reduced. Josiah Tatum.

The Philadelphia Agricultural Society, at its meeting held on the 7th. ult., resolved that the premiums* which have been offered for the best cultivated farms, be witheld until the next year: the Committee will nevertheless continue to examine all such farms as they may receive notice of; and the condition this year, as well as next, will be considered.

The 10th No. of the "Farmer's Encyclopedia," has been received. The Publishers Carey & Hart, of this city, are placing in the hands of the farming interest, a work of far more than ordinary value. Any subject, connected even remotely with his business, whether it be in relation to tillage, stock, soil, manures, implements or crops, the farmer will find aptly illustrated. It should not fail to be on his shelf: and the more frequently it is referred to, the more it will be valued by himself, and his sons. It should not be forgotton too, by the way, that a goodly portion of the work is highly interesting and useful to the housewife.

A Sample of *new* Virginia wheat, of good quality, was shown in the New York market on the 3rd. inst.

* See No. 8—page 261, present vol. of Cab.

Luther Tucker, Esq., of the Cultivator, Albany, and Secretary of the New York State Agricultural Society, will please accept the thanks of the Editors of this paper, for copies of the Transactions of that Society during the past year.

This is a handsome volume of more than 400 pages, and however exalted our expectations may be in relation to the Agriculture and public spirit of the *Empire* state, it really does them credit. We have read the address of Governor Seward at the Annual Fair, last fall, and that of the President, James S. Wadsworth, before the Society in the winter, with a great deal of satisfaction. There is embodied in the work, an abundance of matter in detail, highly beneficial to the farmer, and particularly calculated to encourage him to look abroad among his brethren of the Plough, and gather from the progress they are making, fresh incitements for the agricultural race before him.

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By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage; that is, one cent on each number within the state, or within one hundred miles of the place of publication out of the state,—and one cent and a half to any other part of the United States—and Post Masters are at liberty to receive subscriptions, and forward them to the Publishers under their frank—thus affording an opportunity to all who wish it, to order the work, and pay for it without expense of postage.

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